

Determination of body composition using air displacement plethysmography, anthropometry and bio-electrical impedance in rural elderly Mexican men and women

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Background and aims: Air displacement plethysmography with the BOD-POD is a new densitometry technique, and has been found to be an accurate method to measure body composition. The aim of this study was to assess body composition in a group of free living healthy subjects 60 years of age or older from a rural area of Northwest Mexico, and to evaluate body composition by anthropometry and bioelectrical impedance (BIA) using equations reported for other elderly populations. **Methods:** Body composition was evaluated in 21 women and 26 men with the BOD-POD, by anthropometry, and BIA and compared to different equations using the Bland-Altman procedure. **Results.** Body fat in elderly women and men was 42.7 and 30.2 % respectively. In women, Segal's equation using BIA 1, based on standing height, showed no significant differences with the BOD-POD. There was satisfactory agreement between Segal's equation and BOD-POD. In men similar results was found with Deurenberg's equation using BIA 2 based on